Product data sheet
Characteristics

XPSMCMC10804B
safety controller, Modicon MCM, 8 inputs 4 outputs, combined with backplane expansion connector, screw

Main

Range of product	Modicon Safety automation
Product or component type	Modular safety controller CPU kit
Device short name	XPSMCM
Electrical connection	Screw terminal
[Us] rated supply voltage	24 V - 20...20 % DC
Number of inputs	8.0 digital for input connection 4.0 digital for interlock start/restart or external device monitoring
Number of outputs	4.0 safety outputs OSSD for contactor/drive connection 4.0 test for line control outputs 4.0 configurable for diagnostic connection
Discrete input voltage	24 V
Discrete output current	400 mA
Discrete input current	400 mA
Discrete input type	Safety input PNP
Discrete output type	PNP
Kit composition	1 safety controller CPU 1 backplane expansion connector
Function of module	Emergency stop conforming to ISO 13850 Guard monitoring conforming to EN/ISO 14119 Enabling switch monitoring conforming to IEC 60947-5-1 Light curtain monitoring conforming to IEC 61496-1 Foot switch monitoring conforming to IEC 60947-5-1 Light curtain monitoring conforming to EN/ISO 14119 Switch monitoring conforming to EN 574 Two-hand control conforming to EN/ISO 14119 Safety mat monitoring conforming to IEC 61326-1 Switch monitoring conforming to IEC 61800-5-2 Muting function of light curtains conforming to IEC 61800-5-2 Safety time delays Counter functions

Complementary

Synchronisation time between inputs	< 0.5 ms
Power dissipation in W	3 W
Maximum number of I/O expansion module	14 with 128 discrete output(s) for input 14 with 32.0 discrete output(s) for output
Integrated connection type	Backplane expansion bus USB 2.0 port
Data storage equipment	SD card (optional)
Inductive load	2.4 mH
Load capacitance	0.82 µF
Safety level	Can reach category 4 conforming to ISO 13849-1 Can reach PL = e conforming to ISO 13849-1 Type 4 conforming to IEC 61496-1 SILCL 3 conforming to IEC 62061
Quality labels	CE

Local signalling	1 LED green with PWR marking for power ON 1 LED green with RUN marking for RUN (status) 1 LED red with E IN marking for internal error 1 LED red with E EX marking for external error 1 LED orange with COM marking for communication 1 LED blue with EN marking for master enable 8 LEDs yellow with IN marking for input status 2 LEDs green/red with OUT marking for output status 2 LEDs yellow with RST marking for restart signal 2 LEDs yellow with STATUS marking for output channel
Connections - terminals	2 captive screw terminals, removable terminal block 1 captive screw terminals, removable terminal block
Cable cross section	0.2…1.5 Mm² - AWG 24...AWG 16 flexible cablewithout cable end 0.2…2.5 Mm² - AWG 24...AWG 14 flexible cablewithout cable end 0.25…1 Mm² - AWG 23...AWG 18 flexible cablewith cable end, without bezel 0.25…2.5 Mm² - AWG 23...AWG 14 flexible cablewith cable end, with bezel 0.25…1.5 Mm² - AWG 23...AWG 16 flexible cablewith cable end, without bezel 0.5…1.5 Mm² - AWG 20...AWG 16 flexible cablewith cable end, with double bezel 0.2…1 Mm² - AWG 24...AWG 18 solid cablewithout cable end 0.2…2.5 mm² - AWG 24...AWG 14 solid cablewithout cable end
Mounting support	Omega 35 mm DIN rail conforming to EN 50022
Depth	114.5 mm
Height	99 mm
Width	22.5 mm
Net weight	0.155 kg

Environment

Standards	IEC 61496-1 ISO 13849-1 IEC 61508 IEC 61800-5-1 IEC 62061
Product certifications	TÜV[RETURN]RCM[RETURN]cULus
IP degree of protection	IP20
Ambient air temperature for operation	-10…55 °C
Ambient air temperature for storage	-20…85 °C
Relative humidity	10…95 %
Pollution degree	2
[Uimp] rated impulse withstand voltage	4 kV conforming to IEC 61800-5-1
Safety reliability data	PFHd = 1.35E-8 1/h high DC > 99 % MTTFd < 100 years
Insulation	250 V AC between power supply and housing conforming to IEC 61800-5-1
Overvoltage category	II
Electromagnetic compatibility	Electrostatic discharge immunity test - test level: 6 kV (on contact) conforming to IEC 61000-4-2 Electrostatic discharge immunity test - test level: 20 kV (on air) conforming to IEC 61000-4-2 Susceptibility to electromagnetic fields - test level: 10 V/m (80...1000 MHz) conforming to IEC 61000-4-3 Susceptibility to electromagnetic fields - test level: 30 V/m (1.4 GHz...2 GHz) conforming to IEC 61000-4-3
Vibration resistance	+/-0.35 mm (f= 10…55 Hz) conforming to IEC 61496-1
Shock resistance	10 gn (duration = 16 ms) for 1000 shocks on each axis conforming to IEC 61496-1
Service life	20 year(s)

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.5 cm
Package 1 Width	12.5 cm
Package 1 Length	16.5 cm
Package 1 Weight	263.0 g
Unit Type of Package 2	S01

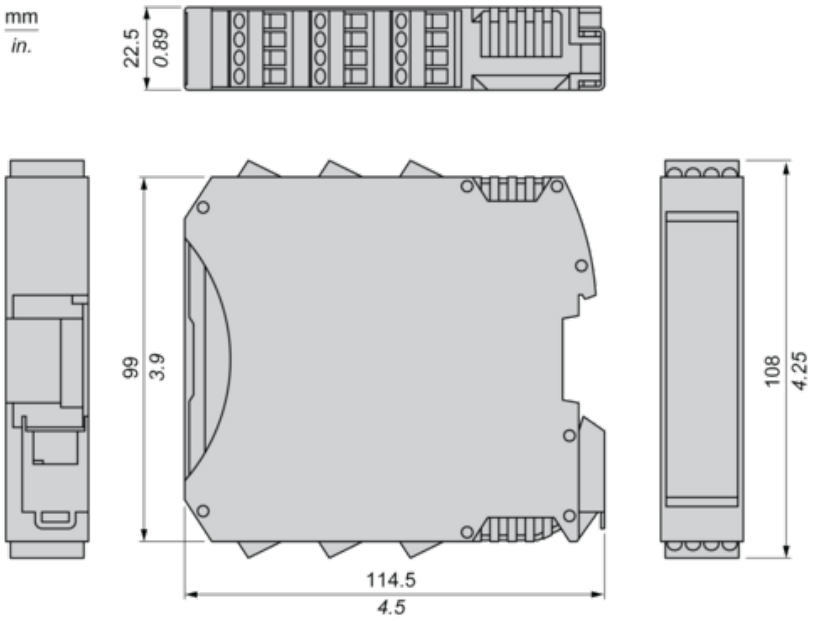
Number of Units in Package 2	6
Package 2 Height	15.0 cm
Package 2 Width	15.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	1.84 kg

Offer Sustainability

REACh Regulation	REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

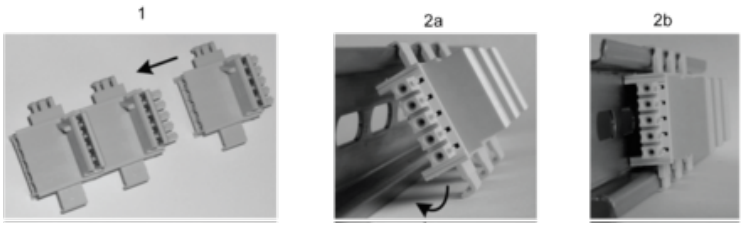
Dimensions

Screw Terminal



Mounting Safety Controller CPU with Module(s)

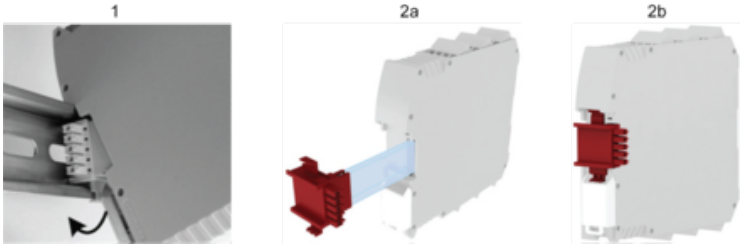
Mount BackPlane Connector on Rail



1 : Connect as much Backplane Connector as module to be install.

2 : Fix the connectors to the rail (Top first).

Mount Safety Controller CPU with Other Module(s)

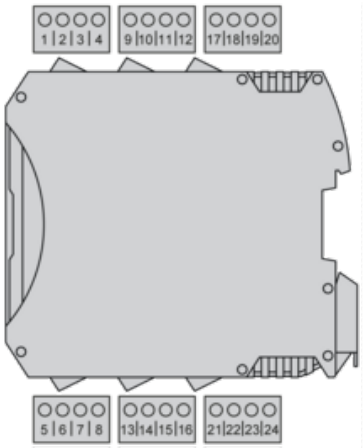


1 : Mount controller CPU and modules on rail.

2 : Make sure that the controller CPU or the module(s) are plugged on the BackPlane connector.

Wiring

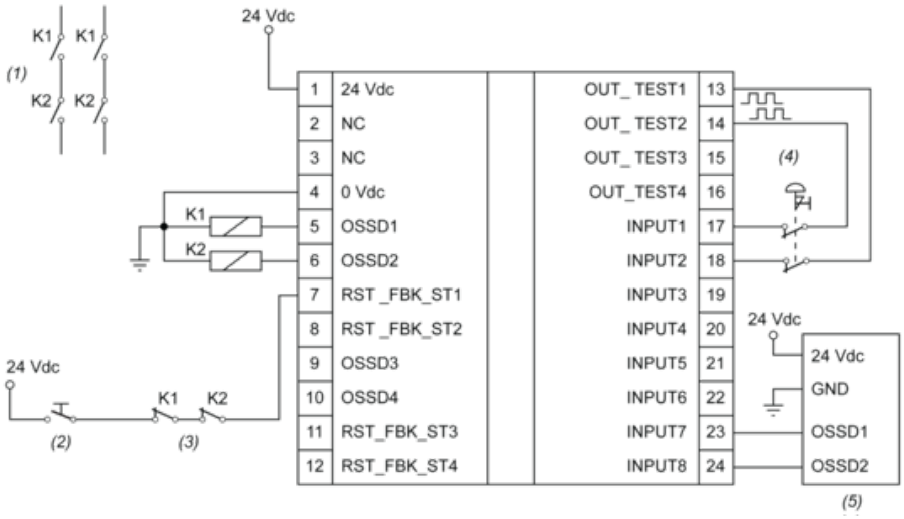
Terminal Designation



Terminal	Signal	Description
1	24 VDC	24 Vdc power supply
2	NC	–
3	NC	–
4	0 VDC	0 Vdc power supply
5	OSSD1	Safety-related output 1
6	OSSD2	Safety-related output 2
7	RESTART_FBK1/ STATUS1	Feedback/Restart 1 for OSSD1
Configurable output 1 for OSSD1		
8	RESTART_FBK2/ STATUS2	Feedback/Restart 2 for OSSD2
Configurable output 2 for OSSD2		
9	OSSD3	Safety-related output 3
10	OSSD4	Safety-related output 4
11	RESTART_FBK3/ STATUS3	Feedback/Restart 3 for OSSD3
Configurable output 3 for OSSD3		
12	RESTART_FBK4/ STATUS4	Feedback/Restart 4 for OSSD2
Configurable output 4 for OSSD2		
13	OUT_TEST1	Test output for detection of short circuits/cross circuits in input circuits
14	OUT_TEST2	
15	OUT_TEST3	
16	OUT_TEST4	
17	INPUT1	Safety-related input 1
18	INPUT2	Safety-related input 2
19	INPUT3	Safety-related input 3
20	INPUT4	Safety-related input 4

Terminal	Signal	Description
21	INPUT5	Safety-related input 5
22	INPUT6	Safety-related input 6
23	INPUT7	Safety-related input 7
24	INPUT8	Safety-related input 8

Wiring Example



(1) : Contactors
(2) : Restart
(3) : Feedback
(4) : Emergency stop
(5) : Light curtain